

REMARKS

The *Arabidopsis* NI16 gene was isolated in a yeast 2-hybrid screen via its interaction with the NIM1 protein and encodes a protein involved in the regulation of SAR gene expression in plants. NI16 is strongly induced in NIM1-overexpressing plants treated with benzo(1,2,3)thiadiazole-7-carbothioic acid *S*-methyl ester (BTH). The nucleic acid sequence of the *Arabidopsis* NI16 promoter, and fragments of the promoter that retain inducible promoter function, as well as transgenic plants containing chimeric genes and vectors comprising the promoter and the promoter fragments, are claimed in the present application.

Claims 1-21 are pending in this case. In the instant amendment, Applicants have cancelled claims 2-4 and 13-15, and have amended claims 11 and 12. The cancellations and amendments are made in response to objections and rejections raised in the outstanding office action, and the amendments are fully supported by the specification and do not raise any new matter issues. Applicants have also added new claims 22 and 23 in order to capture subject matter encompassed within in the scope of the disclosure of the specification at pages 12-16 and 51-56. New claim 24 is added to further address the Examiner's rejections.

Claim Objections

The Examiner has objected to claims 2-4 and 12 under 37 C.F.R. §1.75(c) "as being of improper dependent form for failing to further limit the subject matter of a previous claim." Applicants have cancelled claims 2-4 (and also claims 13-15), and have amended claim 12, and respectfully submit that the grounds for objection have been addressed.

Claim Rejections – 35 U.S.C. §112

Claims 11 and 13-21 have been rejected under 35 U.S.C. §112, first paragraph. The Examiner has taken the position that "the specification, while being enabling for promoters of SEQ ID NO:24-28, does not reasonably provide enablement for a promoter of any fragment of SEQ ID NO:24."

Applicants respectfully traverse to the extent that the statement "does not reasonably provide enablement from a promoter of any fragment of SEQ ID NO:24" is too broad, since clearly 4 fragments of SEQ ID NO:24 are enabled, as the Examiner has stated. In addition, Applicants respectfully submit that the reporter gene expression data disclosed in the specification, in Example 19, demonstrates that a

fragment of at least 274 base pairs (as in SEQ ID NO:26 and 28), retains promoter function. Applicants respectfully submit that this at least demonstrates enablement for not only the 4 fragments specifically disclosed, but also for any fragment comprising SEQ ID NO:26 or 28, as reflected in Claim 1 and in new Claim 26. The data demonstrate that these fragments will retain promoter function, and making and using the claimed invention will not require undue experimentation, since confirmation of promoter function can be achieved by following the disclosure provided in the specification.

In view of the foregoing and the amendments to the claims set out above, Applicants respectfully submit that the instant enablement rejection has been addressed, and should be withdrawn.

The Examiner has also rejected Claims 11 and 13-21 under 35 U.S.C. §112, first paragraph, “as failing to comply with the written description requirement.” However, in light of the amendments to Claim 11, and in view of the fact that the fragments of SEQ ID NO:26 and SEQ ID NO:28 demonstrate retention of promoter activity, Applicants submit that the skilled artisan would understand from the specification as filed that the fragments of Claim 12 and new Claim 26 were within the possession of the inventors at the time of filing. Therefore, Applicants respectfully submit that this rejection has also been addressed, and should be withdrawn.

With regard to new claims 22 and 23, Applicants point to the recitation in these new claims of the molecules of Claims 11 and 12 as the reference molecules, to the recitation of the requirement “having SAR-induction chemical or pathogen-induced promoter activity”, and to the disclosure at pages 11-14 (regarding sequence identity) as support for both enablement of the claimed subject matter, and sufficient written description of the subject matter. This is bolstered by the disclosure of assays for routine confirmation of promoter function (Example 19, for example). Applicants respectfully submit, therefore, that the new claims are not only fully supported by the specification, but also satisfy all statutory criteria for patentability.

Claim Rejections – 35 U.S.C. §102

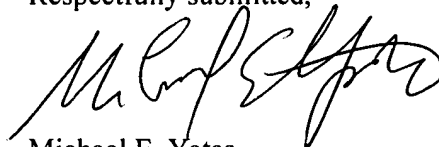
Claims 11 and 13-21 stand rejected under 35 U.S.C. §102(b) “as being anticipated by Ryals et al. (1997, US Patent 5,689,044).” The Examiner notes that the “PR-1 promoter comprises a fragment of at least two nucleotides of SEQ ID NO:24.”

Applicants have amended the claims and believe the amendments address this rejection and render it moot. Applicants respectfully request the rejection be withdrawn.

CONCLUSION

Applicants respectfully submit that all outstanding issues in the present case have been addressed in this paper. Applicants request continued prosecution on the merits and allowance of the claims as presented herein. In the event issues remain that could be dealt with on the telephone, the Examiner is encouraged to call the undersigned attorney for Applicants at 919-541-8587.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Michael E. Yates", written over a horizontal line.

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Date: August 10, 2006